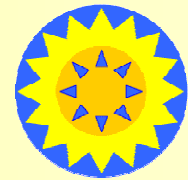


# New NF Membranes for Organic Solvents

## Separation of small molecules ( $M_w < 300$ g/mole)



SolSep BV  
Solutions for Separations

### SolSep Membranes

SolSep BV produces membrane modules that are stable in organic solvents. These modules are available in spiral wound designs.

The current commercial membrane have their practical limit in separation of small molecules typically around 500 g/mole).

SolSep presents new membranes that can separate smaller molecules from solvents like acetone and MEK.

### Technical Data

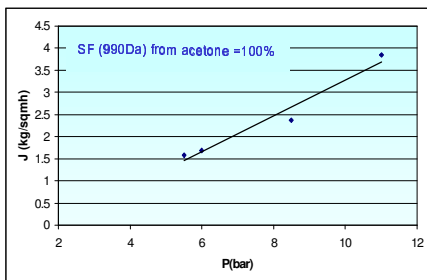


Figure 1. Separation of sunflower oil (7wt%) from acetone. Retention = 100%. The plot suggest a osmotic pressure of ~2bar.

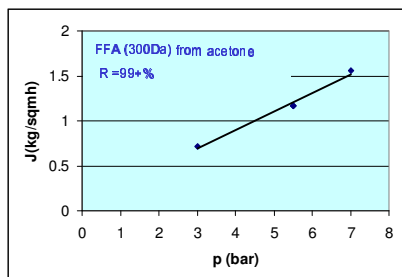


Figure 2. Separation of free fatty acids ( $M_w = 300$ g/mole) from acetone. Retention 99+%

### Technical Data (cont'd)

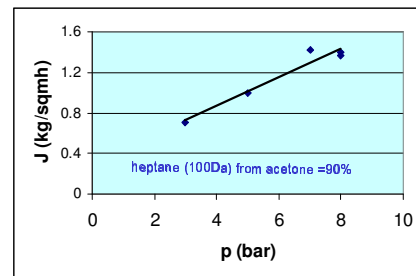


Figure 3. Separation of heptane ( $M_w = 100$ Da) from acetone. Retention = 90%.

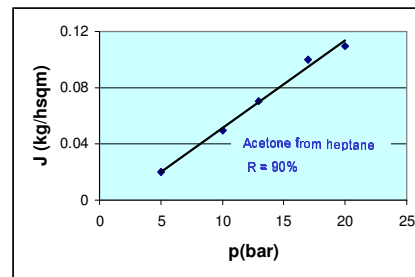


Figure 4. Separation of acetone (5%) from heptane ( $M_w = 100$ Da) retention of heptane: 90%: acetone is permeating! (NB: flux axis!)

### Conclusions

It is possible to make membranes that separate small molecules. The importance of solvent type becomes more important. This is because the interaction between solvent, solute and membrane needs to be more intense to render a sufficient separation.

### Contact

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